Step 1: Research question:

User experience evaluation on AI products on medical imaging in general.

Key words: user experience, medical imaging, UTAUT, TAM user acceptance.

Purpose: Gain insight on the radiologists’ attitude toward AI in medical imaging in general, evaluate constructs of different models, highlight significant correlations. What should the company do after he made the choice of purchase. How to maximize the use of this purchase.

Database chosen: PubMed, Post Quest, Google Search Engine.

Range: 2017-2022, 5 years.

Step 1: Article selection. 78 articles total.

Step 2: Remove duplicates. Marked red, 76 articles left.

Step 3: Remove by title and abstract. Mainly due to irrelevance. Marked yellow, 20 articles left.

Step 4: Select base on full text. Mainly due to not enough participants or lack of user experience perspectives. 5 left.

Conclusion:

23. Radiologists who perform MRI are willing to use AI, but need enhanced education and learning resources.

29.Different opinion between resident doctors and emergency doctors. Both have high ease of use.

63. TPB model adapted. The correlations are interesting.

64. The importance for the radiologist to trust the AI and intention of use.

77. An insight on the doctor’s overall opinion on AI.

| Number | Article name | Database | Link |
| --- | --- | --- | --- |
| 1 | [Early Detection of Mild Cognitive Impairment (MCI) in an At-Home Setting.](https://pubmed.ncbi.nlm.nih.gov/32463070/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/32463070/ |
| 2 | [Virtual reality operating room with **AI** guidance: design and validation of a fire scenario.](https://pubmed.ncbi.nlm.nih.gov/32072293/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/32072293/ |
| 3 | [A Web-Based Serious Game for Health to Reduce Perioperative Anxiety and Pain in Children (CliniPup): Pilot Randomized Controlled Trial.](https://pubmed.ncbi.nlm.nih.gov/31199324/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/31199324/ |
| 4 | [An Audio Personal Health Library of Clinic Visit Recordings for Patients and Their Caregivers (HealthPAL): **User**-Centered Design Approach.](https://pubmed.ncbi.nlm.nih.gov/34677131/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/34677131/ |
| 5 | [Smartphone-based artificial intelligence using a transfer learning algorithm for the detection and diagnosis of middle ear diseases: A retrospective deep learning study.](https://pubmed.ncbi.nlm.nih.gov/35856040/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/35856040/ |
| 6 | [ACCOMP: Augmented cell competition algorithm for breast lesion demarcation in sonography.](https://pubmed.ncbi.nlm.nih.gov/21302781/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/21302781/ |
| 7 | [Patients' perceptions of using **artificial** **intelligence** (AI)-based technology to comprehend **radiology** imaging data.](https://pubmed.ncbi.nlm.nih.gov/33913359/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/33913359/ |
| 8 | [AI-Enabled, Ultrasound-Guided Handheld Robotic Device for Femoral Vascular Access.](https://pubmed.ncbi.nlm.nih.gov/34940279/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/34940279/ |
| 9 | [Multimedia-enhanced **Radiology** Reports: Concept, Components, and Challenges.](https://pubmed.ncbi.nlm.nih.gov/29528822/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/29528822/ |
| 10 | Web-based fully automated cephalometric analysis by deep learning. | PubMed | https://pubmed.ncbi.nlm.nih.gov/32403052/ |
| 11 | [Joint segmentation and classification of hepatic lesions in ultrasound images using deep learning.](https://pubmed.ncbi.nlm.nih.gov/33881566/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/33881566/ |
| 12 | [Implementation of deep learning-based auto-segmentation for radiotherapy planning structures: a workflow study at two cancer centers.](https://pubmed.ncbi.nlm.nih.gov/34103062/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/34103062/ |
| 13 | Convolutional Neural Networks based classification of breast ultrasonography images by hybrid method with respect to benign, malignant, and normal using mRMR. | PubMed | https://pubmed.ncbi.nlm.nih.gov/33901712/ |
| 14 | AAPM Task Group 264: The safe clinical implementation of MLC tracking in radiotherapy. | PubMed | https://pubmed.ncbi.nlm.nih.gov/33260251/ |
| 15 | [Thoracic ultrasound for TB diagnosis in adults and children.](https://pubmed.ncbi.nlm.nih.gov/35317533/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/35317533/ |
| 16 | [Assessment of the Willingness of Radiologists and Radiographers to Accept the Integration of **Artificial** **Intelligence** Into **Radiology** Practice.](https://pubmed.ncbi.nlm.nih.gov/33129659/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/33129659/ |
| 17 | Automatic Masseter Thickness Measurement and Ideal Point Localization for Botulinum Toxin Injection. | PubMed | https://pubmed.ncbi.nlm.nih.gov/31946475/ |
| 18 | [Initial **experience** with AI Pathway Companion: Evaluation of dashboard-enhanced clinical decision making in prostate cancer screening.](https://pubmed.ncbi.nlm.nih.gov/35857753/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/35857753/ |
| 19 | Application of Natural Language Processing to Learn Insights on the Clinician'**s** Lived **Experience** of Electronic Health Records. | PubMed | https://pubmed.ncbi.nlm.nih.gov/35062097/ |
| 20 | DeepImageTranslator: A free, **user**-friendly graphical interface for image translation using deep-learning and its applications in 3D CT image analysis. | PubMed | https://pubmed.ncbi.nlm.nih.gov/35058205/ |
| 21 | A Lightweight Internet Sharing Scheme for Sectional Medical Images according to Existing Hospital Network Facilities and Basic Information Security Rules. | PubMed | https://pubmed.ncbi.nlm.nih.gov/33354310/ |
| 22 | Use of Twitter Polls to Determine Public Opinion Regarding Content Presented at a Major National Specialty Society Meeting. | PubMed | https://pubmed.ncbi.nlm.nih.gov/27687748/ |
| 23 | [Assessment of MRI technologists in **acceptance** and willingness to integrate **artificial** **intelligence** into practice.](https://pubmed.ncbi.nlm.nih.gov/34364784/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/34364784/ |
| ~~24~~ | [~~Patients' perceptions of using~~**~~artificial~~****~~intelligence~~**~~(AI)-based technology to comprehend~~**~~radiology~~**~~imaging data.~~](https://pubmed.ncbi.nlm.nih.gov/33913359/) | ~~PubMed~~ | ~~https://pubmed.ncbi.nlm.nih.gov/33913359/~~ |
| 25 | [CT Dosimetry: What Has Been Achieved and What Remains to Be Done.](https://pubmed.ncbi.nlm.nih.gov/32932380/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/32932380/ |
| 26 | Atri-U: assisted image analysis in routine cardiovascular magnetic resonance volumetry of the left atrium. | PubMed | https://pubmed.ncbi.nlm.nih.gov/34758821/ |
| 27 | Fully Automated Cardiac Assessment for Diagnostic and Prognostic Stratification Following Myocardial Infarction. | PubMed | https://pubmed.ncbi.nlm.nih.gov/32873121/ |
| 28 | [MIDeepSeg: Minimally interactive segmentation of unseen objects from medical images using deep learning.](https://pubmed.ncbi.nlm.nih.gov/34118654/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/34118654/ |
| 29 | **User** Satisfaction with an AI System for Chest X-Ray Analysis Implemented in a Hospital'**s** Emergency Setting | PubMed | https://pubmed.ncbi.nlm.nih.gov/35612006/ |
| 30 | [Machine learning for automated 3-dimensional segmentation of the spine and suggested placement of pedicle screws based on intraoperative cone-beam computer tomography.](https://pubmed.ncbi.nlm.nih.gov/30901757/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/30901757/ |
| 31 | [Supervised Machine Learning-Based Decision Support for Signal Validation Classification.](https://pubmed.ncbi.nlm.nih.gov/35579820/) | PubMed | https://pubmed.ncbi.nlm.nih.gov/35579820/ |
| 32 | Atlas-based segmentation of pathological knee joints. | PubMed | https://pubmed.ncbi.nlm.nih.gov/15458086/ |
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| 34 | A clinical evaluation study of cardiothoracic ratio measurement using **artificial** **intelligence**. | PubMed | https://pubmed.ncbi.nlm.nih.gov/35296262/ |
| 35 | Stopping Criteria for Log-Domain Diffeomorphic Demons Registration: An Experimental Survey for Radiotherapy Application. | PubMed | https://pubmed.ncbi.nlm.nih.gov/24000996/ |
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| 37 | A software program for automated compressive vertebral fracture detection on elderly women'**s** lateral chest radiograph: Ofeye 1.0. | PubMed | https://pubmed.ncbi.nlm.nih.gov/35919046/ |
| 38 | A diagnostic expert system for structured reports, quality assessment, and training of residents in sonography. | PubMed | https://pubmed.ncbi.nlm.nih.gov/15024483/ |
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| 46 | Lessons from the COVID-19 Pandemic on the Use of **Artificial** **Intelligence** in Digital **Radiology**: The Submission of a Survey to Investigate the Opinion of Insiders. | PubMed | https://pubmed.ncbi.nlm.nih.gov/33804195/ |
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| 55 | [The variant artificial intelligence easy scoring (VARIES) system](https://www.proquest.com/docview/2663091271/5A6D6043C3BD4EE0PQ/2) | ProQuest | https://www.proquest.com/docview/2663091271/5A6D6043C3BD4EE0PQ/2 |
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| 61 | [Artificial intelligence in GI endoscopy: stumbling blocks, gold standards and the role of endoscopy societies](https://www.proquest.com/docview/2626641093/F6275A2A6AE3416APQ/7) | ProQuest | https://www.proquest.com/docview/2626641093/F6275A2A6AE3416APQ/7 |
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| 66 | [Forecasting care seekers satisfaction with telemedicine using machine learning and structural equation modeling](https://www.proquest.com/docview/2576318431/4B05AE0AAAC04402PQ/7) | ProQuest | https://www.proquest.com/docview/2576318431/4B05AE0AAAC04402PQ/7 |
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